



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of

Charles J. Upchurch

Serial Number 10/642,874

Filed: 8/18/2003

For: METHOD AND APPARATUS FOR PRODUCING IRON ARTICLE AND PRODUCT

Prior Art Statement

Assistant Commissioner for Patents  
Washington, D. C. 20231

Dear Sir:

Applicant is aware of the following prior art:

1. Moench U.S. Patent 1,165,338 discloses a process of plating cash iron or steel with an aluminum layer by heating the steel to a dull red and heating the aluminum almost to the melting point. The aluminum is then spread onto the steel with a pointed instrument.

2. Keating U.S. Patent 3,400,010 discloses a method of applying aluminum to a steel article by heating the steel, melting the aluminum and spraying the melted aluminum onto the steel article and then heating the article to a much higher temperature.

3. Kanter U.S. Patent 3,954,512 discloses a method of applying an aluminum layer to steel by heating the steel article and applying a solid aluminum to the article by rubbing.

4. Satake U.S. Patent 3,959,030 discloses a method of producing an aluminum coated steel by heating the steel article, spraying an aluminum layer onto the steel and then rolling the composite article to reduce its cross-sectional area.

5. De Walt U.S. Patent 4,036,670 discloses a method of making a tool steel by spraying aluminum onto the article, heat treating the article and then grinding off the aluminum layer.

6. Shibamori U.S. Patent 4,202,709 discloses a method of producing an aluminum layer on a steel article by heating the steel article, dipping it in a bath of liquid aluminum and then rolling the composite article to bond the aluminum to the steel.

7. Uchida U.S. Patent 4,546,051 discloses a method of producing an aluminum-silicon layer on a steel article by heating the steel article, dipping it in a bath of aluminum and silicon and then rolled to reduce the cross-sectional area of the article.

8. Rallis U.S. Patent 4,655,852 discloses a method of making an aluminized steel article by spraying or dipping and then heated and cooled in a desired manner to produce a steel article having an aluminum-iron alloy on the surface.

9. Izaki U.S. Patent 5,960,835 discloses a method of coating a cast iron pipe with aluminum and manganese by flame spraying the aluminum and manganese onto a rotating pipe.

A copy of each of the above is attached.

Respectfully submitted,



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Registration 22,978

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711 N. Carancahua, Suite 720  
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361/883-7257  
August 1, 2003

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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**Complete if Known**

Application Number

10/642 874

Filing Date

8-18-2003

**First Named Inventor**

CHARLES J. UPCHURCH

### Art Unit

1722

Examiner Name

Attorney Docket Number

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner  
Signature**

Date  
Considered

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.<sup>1</sup> Applicant's unique citation designation number (optional).<sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.<sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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